

ABSTRACT OF THE DISCLOSURE

An improved microwave unit and tissue processor system incorporating the unit
are provided for use in rapid tissue processing. The microwave unit may be comprised of
5 an energy source, a waveguide transmitting the microwave energy to a reaction chamber,
and the reaction chamber being adapted to process tissue specimens for histology. The
unit provides gentle and uniform heating, with minimal heat loss and escape of volatile
chemicals. The system may be operated continuously and/or batchwise, by manual ope-
ration or automatically. The automated system may be operated with continuous through-
put to obtain the advantages of the invention such as, for example, rapid processing under
10 two hours and/or preservation of cell structure and tissue architecture.